UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,236	08/28/2003	Tatsutoshi Abe	393032040300	6413

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David L. Fehrman
Morrison & Foerster LLP
35th Floor
555 W. 5th Street
Los Angeles, CA 90013

EXAMINER
ANWARI, MACEEH

ART UNIT	PAPER NUMBER
2144	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/650,236	ABE ET AL.
	Examiner	Art Unit
	Maceeh Anwari	2144

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 August 2003*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date *8/23/2003, 3/15/2004, 34/25/2005*.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

This is the initial Office action based on the 10/652,236 application filed on 8/28/2003. Claims 1-10, as originally filled, are currently pending and have been considered below.

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2.   Claims 1-10 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The applicant uses the term *isochroous transfer* throughout the body of the instant claims, without effectively defining it's meaning. Therefore, judging by the context of the term, the examiner will interpret this to be any form of transfer where time is taken into consideration.

Claim Rejections - 35 USC § 101

3.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-6 & 8-10 are rejected under 35 U.S.C. 101 because the claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of

matter. As such, they fail to fall within a statutory category. They are, at best, functional

descriptive material *per se*.

Descriptive material can be characterized as either "functional descriptive material" or

"non-functional descriptive material." Both types of "descriptive material" are non-

statutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at

1759. When <u>functional</u> descriptive material is recorded on some computer-readable

medium, it becomes structurally and functionally interrelated to the medium and will be

statutory in most cases since use of technology permits the function of the descriptive

material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d

1031, 1035 (Fed. Cir. 1994)

Merely claiming non-functional descriptive material, i.e., abstract ideas, stored on a

computer-readable medium, in a computer, or on an electromagnetic carrier signal,

does not make it statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8 (noting that

the claims for an algorithm in *Benson* were unpatentable as abstract ideas because

"[t]he sole practical application of the algorithm was in connection with the programming

of a general purpose computer.").

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4.   Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Fujimori

et al U.S. Patent No.: 6,148,051.

Claim 1: A command synchronization establishment system using a network wherein

data is transferred by an isochrous transfer, a command is transferred by an

asynchronous transfer, and a synchronized clock is shared by apparatuses connected to the network, the system comprising (Figure 3 and Abstract): a controller connected to the network, comprising a transmitter that transmits a command including a time-stamp to a target apparatus by using the asynchronous transfer (Figures 1-3 and Col. 4 lines 8-16; time stamp register, send buffer and transmitted data); and the target apparatus connected to the network, comprising a receiver that receives the command, a storage device that temporally stores the received command in order not to execute the received command instantly, and a executing device that executes the received command in accordance with the time-stamp included in the command to be executed (Figures 1-5B and Col. 4 lines 8-26; time stamp register, receipt register, time register, receive buffer and received data).

Claim 2: Wherein said executing device that executes the received command when a current time reaches to a time represented by the time-stamp included in the command to be executed (Figures 1-5B and Col. 4 lines 8-26; time stamp register, receipt register, time register, cycle timing, and cycle period and clock generating circuit).

Claim 3: Wherein said executing device that executes the received command before a time represented by the time-stamp included in the command to be executed and validates a process result when a current time reaches to the time represented by the time-stamp (Figures 1-5B and Col. 4 lines 8-26; time stamp register, cycle timing, cycle period, clock generating circuit and delay and comparing circuit).

Claim 4: Wherein said time-stamp included in the command is in a format including a part or all of a format of a cycle time register of the synchronized clock for sharing a

current time by the devices connected to the network (Figures 1-5B and Abstract & Col. 4 lines 8-26; time stamp register, cycle timing register, cycle period, clock generating circuit and delay and comparing circuit and synchronizing internal time data).

Claim 5: Wherein said command includes a flag instructing the executing device to execute the command instantly or when a current time reaches to a time represented by the time-stamp included in the command (Figures 1-5B and Abstract & Col. 4 lines 8-26; time stamp register, receipt register, time register, cycle timing, cycle period, clock generating circuit and delay and comparing circuit and data packets).

Claim 6: Wherein the flag uses a part of a format of the time-stamp included in the command (Figures 1-5B and Abstract & Col. 4 lines 8-26; time stamp register, receipt register, time register, cycle timing, cycle period, clock generating circuit and delay and comparing circuit and data packets and synchronizing internal time data).

Claim 7: A command synchronization establishment method using a network wherein data is transferred by an isochroous transfer, a command is transferred by an asynchronous transfer, and a synchronized clock is shared by apparatuses connected to the network, the method comprising the steps of (Figure 3 and Abstract): transmitting a command including a time-stamp to a target apparatus by using the asynchronous transfer from a controller connected to the network (Figures 1-3 and Col. 4 lines 8-16; time stamp register, send buffer and transmitted data); receiving the command by the target apparatus connected to the network (Figures 1-5B and Col. 4 lines 8-26; time stamp register, receipt register, time register, receive buffer and received data); temporally storing the received command in order not to execute the received command

instantly (Figures 1-5B and Abstract & Col. 4 lines 8-26; time stamp register, receipt

register, time register, receive buffer and received data and delay); and executing the

received command in accordance with the time-stamp included in the command to be

executed (Figures 1-5B and Abstract & Col. 4 lines 8-26; time stamp register, receipt

register, time register, receive buffer and received data and time sequential

arrangement of data).

Claim 8: A controller for a command synchronization establishment system connected

to a network to which a target apparatus comprising a receiver that receives the

command (Figures 1-5B and Abstract & Col. 4 lines 8-26; time stamp register, receipt

register, time register, send buffer and transmitted data, receive buffer and received

data), a storage device that temporally stores the received command in order not to

execute the received command instantly (Figures 1-5B and Col. 4 lines 8-26; receipt

register, time register and delay), and a executing device that executes the received

command in accordance with the time-stamp included in the command to be executed

is connected (Figures 1-5B and Abstract & Col. 4 lines 8-26; receipt register, time

register, receive buffer and received data and time sequential arrangement of data), and

wherein data is transferred by an isochroous transfer (Figures 1-5B and Abstract & Col.

4 lines 8-26; isochronous cycle, and time sequential arrangement of data), a command

is transferred by an asynchronous transfer (Figures 1-5B and Abstract & Col. 4 lines 8-

26; asynchronous data packet set), a synchronized clock is shared by apparatuses

connected to the network, the, the controller comprising (Figures 1-5B and Abstract &

Col. 4 lines 8-26; synchronous data packet set and synchronizing device): a transmitter

that transmits a command including a time-stamp to the target apparatus by using the asynchronous transfer (Figures 1-3 and Abstract & Col. 4 lines 8-16; time stamp register, send buffer and transmitted data and asynchronous data packet).

Claim 9: A target apparatus for a command synchronization establishment system using a network to which a controller comprising a transmitter that transmits a command including a time-stamp to a target apparatus by using the asynchronous transfer is connected (Figures 1-3 and Abstract & Col. 4 lines 8-16; time stamp register, send buffer and transmitted data and asynchronous data packet), and wherein data is transferred by an isochroous transfer, a command is transferred by an asynchronous transfer, and a synchronized clock is shared by apparatuses connected to the network (Figures 1-3 and Abstract & Col. 4 lines 8-16; time stamp register, send buffer and transmitted data and asynchronous data packet and synchronizing device), the target apparatus comprising: a receiver that receives the command (Figures 1-5B and Col. 4 lines 8-26; time stamp register, receipt register, time register, receive buffer and received data); a storage device that temporally stores the received command in order not to execute the received command instantly (Figures 1-5B and Col. 4 lines 8-26; time stamp register, receipt register, time register, receive buffer and received data and delay); and a executing device that executes the received command in accordance with the time-stamp included in the command to be executed (Figures 1-6 and Col. 4 lines 8-26; time stamp register and CPU).

Claim 10: is substantially the same as **claim 9** and is thus rejected for reasons similar to those in rejecting **claim** 9.

Examiner Note: Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in its entirety as potentially teaching of all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maceeh Anwari whose telephone number is 571-272-7591. The examiner can normally be reached on Monday-Friday 7:30-5:00 PM ES.
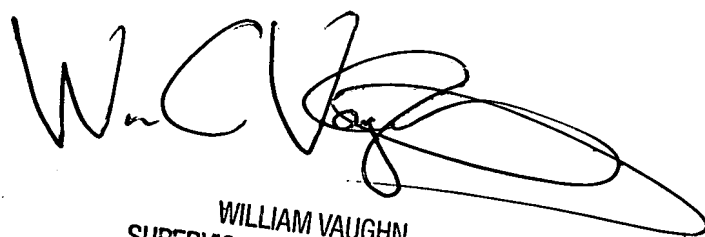
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Vaughn can be reached on 571-272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

M.A.

WILLIAM VAUGHN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100